COUNTY OF CORNWALL,
District No. 25.

ST. IVES

Cornwall

URBAN SANITARY AUTHORITY.

Medical Officer's Annual Report.

1897.

J. U. WHITE, PRINTER, ST. IVES.

THE ST. IVES
URBAN SANITARY AUTHORITY.

To the Mayor, Aldermen, and Councillors.

Gentlemen,

I beg to present the following as my Annual Report of the St. Ives Urban Sanitary District for 1897,

And remain,

Yours faithfully,

J. M. NICHOLLS,
M.O.H.

February, 1898.

COUNTY OF CORNWALL,
DISTRICT No. 25.

1897.

St. IVES URBAN SANITARY AUTHORITY.

MEDICAL OFFICER'S ANNUAL REPORT.

Area, 1100 Statute Acres.	Population 1881, 6,445.
Density of population per acre, 5·87.	,, 1891, 6,094.
Emigrants (1897), 48.	Immigrants (1897), 116.

Estimated population, 1897 ... ... 6,716.
Inhabited houses, 1881 ... ... 1,483.
,, ,, 1891 ... ... 1,478.
,, ,, 1897 ... ... 1,609.

Births Registered, **170** (males 96 ; females 74).
Deaths ,, **105** (males 47 ; females 58)—**Natural Increase, 67.**

	1893.	1894.	1895.	1896.	1897.
Birthrate per 1000 of population	29·37	29·53	28·55	28.55	**27·89.**
Deathrate ,, ,,	18·87	21·82	21·16	18·21	**17·23.**

Classification of Ages of Deaths.

	1 yr. & under.	1 to 5 yrs.	5 to 15 yrs.	15 to 25 yrs.	25 to 65 yrs.	65 to 80 yrs.	Over 80.	Total.
January ...	1	—	—	—	2	1	1	5
February...	4	—	—	—	2	3	3	12
March......	2	2	1	1	1	2	2	11
April	2	1	—	—	1	3	2	9
May	1	—	—	—	2	4	2	9
June	1	—	—	—	6	1	—	8
July	1	—	—	—	—	3	—	4
August ...	4	1	1	-	2	2	—	10
September.	1	1	—	1	2	1	—	6
October ...	—	—	—	—	2	2	1	5
November.	5	2	—	—	4	4	—	15
December..	2	1	—	—	5	3	—	11
	24	8	2	2	29	29	11	105

The birthrate is satisfactory.

The deathrate is one per 1000 lower than last year, and lower than for some years; but is still made large by the high rate of one in every four deaths being a child under twelve months. Again a large proportion of deaths were 80 and upwards. In the fifth column most of the deaths were about 60 years and over. The sixth column shows the number of deaths between 65 and 80 years above the average.

Eight of the deaths were visitors, and the causes:—3 Phthisis, 1 Cancer, 1 Diphtheria, 1 Apoplexy, 1 Inquest (Natural Causes), and 1 Heart Disease.

Two illegitimate births; at the rate of ·32 per 1000 of the population; or 1 in 85 births.

No illegitimate deaths.

Analysis of Deaths.

1893.	1894.	1895.	1896.	1897.	
17	25	14	20	19	deaths were due to diseases of the Nervous System.
11	15	15	15	16	,, ,, Circulatory System.
21	24	36	26	21	,, ,, Respiratory System.
16	10	6	6	4	,, ,, Alimentary System.
3	2	5	3	7	,, ,, Genito-Urinary System.
2	8	11	13	8	,, ,, Lymphatic System.
11	11	11	0	5	,, Zymotic diseases.
15	15	10	11	8	,, Senile decay.
8	10	10	6	5	,, Marasmus.
9	6	1	3	5	,, Premature births and Malformations.
2	7	10	8	6	Inquests (Accidents or Natural Causes).

Inquests.—All certified as " Natural Causes."

Infant Mortality.—24 deaths: deathrate 3·93 per 1000 of the population, or at the rate of 141 deaths to 1000 births.

Zymotic Mortality.—5 deaths. Whooping Cough, 4 deaths; and Diphtheria 1 death (visitor). The Diphtheria must have been contracted before arriving here. Isolation and careful disinfection prevented any other cases occurring.

This is not a serious Zymotic Mortality. It may be considered favourable, as showing no chief Zymotic disease arising in the district.

Cancer Mortality.—6 deaths (2 males and 4 females) being a deathrate of ·98 per 1000 of population. This is lower than for some years. The ages were: Males—51 and 75 years; females—54, 61, 70, and 88 years.

Phthisical Mortality.—8 deaths (4 males and 4 females), being a deathrate of 1·31 per 1000 of the population. 3 were visitors who had not been long in the district. The ages were: Males—27, 35, 60, and 64 years; females—14, 17, 27, and 42 years.

Respiratory Mortality.—14 deaths from Bronchitis and Pneumonia: deathrate 2·29 per 1000 of population. 7 were infants under 12 months, 2 under 3 years, and the other ages 55, 66, 73, 82, and 87 years.

EPIDEMICS.

No disease has been epidemic during the year. Many cases of Whooping Cough occurred, but it was not generally prevalent.

NOTIFICATION OF DISEASE.

During the year 29 cases of infectious disease were notified, making a rate of 4·75 per 1000 of population—a lower rate than for any year since the Act was adopted.

Analysis of Cases Notified.

					Fevers.		
	Small pox.	Diphtheria and Croup.	Erysipelas.	Scarletina.	Typhoid.	Continued.	Puerperal.
January......	...	...	4	...	...	...	1
February ...	...	...	2	...	...	...	...
March	...	...	1	...	...	...	...
April	...	...	...	...	...	...	...
May	...	...	1	...	...	...	...
June	...	...	1	...	...	...	...
July	...	...	1	...	...	...	...
August	...	...	1	1	...	...	...
September...	...	...	1	5	1	1	...
October	...	...	1	1	...	...	...
November ...	...	1	...	2	...	...	...
December ...	...	1	1	1	...	...	...
Total	...	2	14	10	1	1	1
Rate per 1000 of population	...	·32	2·29	1·64	·16	·16	·16

Total cases notified, 29.
Total rate per 1000 of population, 4·75.

All recovered except a child of a visitor, who developed Diphtheria the day after arriving here, and died in three days.

HOUSE INSPECTIONS.

These I have made frequently during the year, especially where I had reason to think inspection necessary. I very often found things were not as they should be, but a word of advice was effectual, and the only remedy required from me.

I came to the conclusion that the tendency to overcrowding is much less marked ; that houses show improved sanitary condition ; that water-closet accommodation is improving. There are still many houses that have damp walls, and where the carrying away of rain water is not paid sufficient attention to, and in which fireplaces and windows are inefficient.

Fifty-five old houses have had water-closets added, in addition to other sanitary arrangements.

THE SANITARY CONDITION OF THE TOWN.

This shows steady improvement. But there are many parts where old customs in throwing refuse still continue, notably—various parts of the Stennack Stream, the Foresand, Porthmeor Beach (near the Digey), and Wheal Dream. The efforts that the Sanitary Authority are taking to prevent this evil will doubtless succeed ere long. I would strongly advise that they be persevered in.

The scavenging and street sweeping is generally very credibly done by those whose duty it is to do it. The one covered cart is not sufficient ; and if the Authority do not see their way clear to provide another at present, some means should be taken to prevent dusty refuse being blown off the uncovered cart. In spite of printed notices posted about, and other actions taken, uncovered manure and refuse are still occasionally evident; but I may say this is less a nuisance each year.

The latrines and public water-closets are a great boon to the town, and are kept in a very clean and satisfactory condition.

SPECIAL SANITARY WORK.

The ventilating shafts referred to in previous reports, as being required for the main Terrace and other drains, are not yet erected, but I believe this is about to be done.

The large number of new houses in Bedford Road and Wesley Place make it necessary to have a new drain through High Street.

During the year a new drain has been laid in Court Cocking, new road guttering has been laid in Dove Street and at Sea View, at a cost of about £50.

NEW BUILDINGS.

45 New Buildings certified as fit for occupation.

			£	s.		£
17	in Bedford Road,	at rentals from	7	10	to	16
12	,, Wesley Place,	,, ,,	6	0	,,	8
4	,, Trenwith Terrace,	,, of about	10	10		
2	,, Atlantic Terrace,	,, ,,	11	0		
2	at Ayr	,, ,,	15	0		
3	,, Pier View,	,, ,,	7	0		
2	,, Talland Road,	,, ,,	40	0		
2	,, Treloyhan,	,, ,,	15	0		
1	,, Bavella	,, ,,	15	0		
1	Fitting Shop and Store on Beach (on site previously rated).					
2	Fish Curing Houses at Carncrows		15	0		
Adding a rateable value to the Town of about			£543	0		

WATER SUPPLY.

A plentiful supply of good water is now available, 320 feet above sea level, and well above the higher parts of the Town.

The slight breakdown of the Gas Pumping-engine during last summer (which was fortunately only temporary), must be a warning to us not to place too implicit a trust in machinery. The reoccurrence of such an accident must be provided against, and a continuous supply assured. Although other sources exist, viz., Wheal Mary, &c., yet this supply is necessary to ensure an abundance of water during very dry weather.

I have had samples of water analysed by the County Analyst, from the five sources of our supply, and I herewith append the results :

Trenwith Supply.

Chlorine	3·6	grains per gallon.
Nitrogen (as Nitrates)	·140	,, ,,
Ammonia, free	·0073	,, ,,
Ammonia, Albuminoid	·0057	,, ,,
Oxygen, absorbed in 15 minutes	.025	,, ,,
Do. do. 4 hours	·035	,, ,,
Total solid matter in solution	17·1	,, ,,
Solid matter reduced by ignition to	12·3	,, ,,
Hardness	7·25	degrees.
Appearance in two-feet tube	good colour, and clear.	

Wheal Ayr Supply.

Chlorine	5·2 grains per gallon.
Nitrogen (as Nitrates)	·385 ,, ,,
Ammonia, free	·0028 ., ,,
Ammonia, Albuminoid	·0060 ,, ,,
Oxygen, absorbed from permanganate at 80 degrees Far., in 15 minutes.	·011 ,, ,,
Do. do. do. in 4 hours.	·028 ,, ,,
Total solid matter in solution	39·4 ,, ,,
Solid matter reduced by boiling to	26·2 ,, ,,
Hardness	17 degrees.
Smell when treated to 90 degrees C.	none.
Appearance in two-feet tube	clear. and greenish.

Chyangwheal Supply.

Chlorine	3·5 grains per gallon.
Nitrogen (in Nitrates)	·140 ,, ,,
Ammonia, free	·0056 ,, ,,
Ammonia, Albuminoid	·0073 ,, ,,
Oxygen, absorbed from permanganate at 80 degrees Far., in 15 minutes.	·018 ,, ,,
Do. do. do. in 4 hours	·060 ,, ,,
Total solid matter in solution	14·4 ,, ,,
Solid matter reduced by boiling to	8·6 ,, ,,
Hardness	6 degrees.
Smell when treated to 90 degrees C.	none.
Appearance in two-feet tube	clear, and greenish.

Penbeagle Supply.

Chlorine	3·1 grains per gallon.
Nitrogen (as Nitrates)	·140 ,, ,,
Ammonia, free	·0056 ,, ,,
Ammonia, Albuminoid	·0073 ,, ,,
Oxygen, absorbed from permanganate at 80 degrees Far., in 15 minutes.	·024 ,, ,,
Do. do. do. in 4 hours	·117 ,, ,,
Total solid matter in solution	15·0 ,, ,,
Solid matter reduced by boiling to	9·3 ,, ,,
Hardness	5·5 ,, ,,
Smell when reduced to 90 degrees C.	none.
Appearance in two-feet tube	quite clear, greenish.

Wheal Mary Supply.

Chlorine	3·4 grains per gallon.
Nitrogen (as Nitrates)	·105 ,, ,,
Ammonia, free	·0050 ,, ,,
Oxygen absorbed in 15 minutes	·045 ,, ,,
Do. do. in 4 hours	·091 ,, ,,
Total solid matter in solution	14·1 ,, ,,
Solid matter reduced by ignition to	8·1 ,, ,,
Sulphuric acid	2·172 ,, ,,
Phosphates	none.
Hardness	4·25 degrees.
Appearance in two-feet tube	greenish, clear.

All these are good waters, suitable for drinking and all other domestic purposes.

Bake-houses and Slaughter-houses.—These are generally kept in good condition.

Dairies, Cowsheds and Milkshops.—These are satisfactory.

GENERAL REMARKS.

A favourable year.

The Zymotic sickness and deathrate is satisfactorily low. No disease has been epidemic. The large proportion of deaths of infants and elderly people cannot escape notice.

METEOROLOGICAL SUMMARY.

Month.	Dry bulb.	Wet bulb.	Highest Max.	Lowest Min.	Mean Daily Range.	Mean Temperature	Mean Barometer.	Rainfall in inches.	No. Rainy Days.	Days Sunshine.	Prevailing Wind.
Jan ..	41·87	39·21	51·2	31·0	5·42	40·06	29·50	2·71	12	21	S.W.
Feb ..	47·97	47·03	54·0	37·0	5·61	48·13	30·08	3·92	14	14	W.S.W.
March.	48·13	45·87	56·0	36.5	7·80	47·31	29·67	5·81	17	23	N.W.
April .	48·95	46·69	61·4	36·7	8·74	48·60	29·82	4·09	16	21	W.N.W.
May ..	54·41	50·03	67·8	41·7	10·47	55·08	30·30	1·34	5	23	N.W.
June..	62·48	58·65	78·0	50·5	11·03	59·86	30·03	2·21	8	22	W.
July ..	63·87	60·12	76·0	53·3	10·56	62·60	30·02	1·21	8	25	S.W.
Aug ..	64·25	60·39	76·7	51·7	9·49	62·46	29·86	5·09	20	26	S.S.W.
Sept ..	57·19	54·40	64·9	48·4	7·33	56·71	30·06	4·47	17	21	N.W.
Oct ..	55·47	53·17	61·0	43·3	5·78	55·09	30·10	1·58	11	24	S.W.
Nov ..	51·70	49·89	59·0	42·1	5·01	50·12	30·12	3·53	13	20	S.S.W.
Dec ..	47·43	45·26	56·6	36·0	6·83	48·05	29·89	9·15	20	19	W.N.W.
—	643·72	610·71	—	—	94·07	634·07	—	45·11	161	252	—
—	53·64	50·89	—	—	7·83	52·83	—	—	—	—	—

The above table testifies to the equableness of the climate.

I would draw attention to the favourable mean daily range of temperature for the year of 7·83, and to the mean temperature for the year of 52·83. The highest temperature in the shade was 78·0 in June, and the lowest 31·0 in January.

The climatic changes were not sudden or extreme, or such as to be the direct cause of much sickness.

J. M. NICHOLLS,
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F.R. Met. Soc.,
Medical Officer of Health.

February, 1898.